BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

BYATARAYANPURA DIVISION

Name of work : Name of work: Modified Estimate for Construction and Developments of Toilets in Ward No. 06 (Thanisandra).

Modified Amount :36,02,776/-

Job No : 006-17-000047

BRUHAT BANGALORE MAHANAGARA PALIKE
YELAHANKA ZONE
DETAILED MEASUREMENT SHEET
1st AND FINAL BILL

Name of Work: Construction and Developments of Toilets in Ward No. 06 (Thanisandra).

Name of Agency: M. Prakash, # 136, Kashinagara Main Road, Amruthahalli, Bangalore - 92.

Estimated Cost: 40,00,000.00

Job No : 006-17-000047

Tender Amount : Rs. 36,03,602.73 Lakhs

Modified Estimate cost : Rs 36,02,776.00

Work Order No. BBMP/EE/BTP/WO/170/2018-19 Dated: 03-12-2018.

Measurement Recorded on :

Sl No	Description of item	Unit	No	L	B	D	Qty	Rate	Amount
1	KSRB 2-2.1 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, **in ordinary soil** not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(a) / 2.3.5 **Page No. 5 / Item No. 2.3 of PWD SR 2016-17**	Cum							
				Qty Vide pre-measuremne It No 1 P. No 1			212.04	190.00	40288.00
2	KSRB 2.14-1: **Extra for additional lift of 1.5m**. or part thereof for excavation In loose / soft or hard soil including cost of materials, labour complete as per specifications.	Cum							
				Qty Vide pre-measuremne It No 2 P. No 1			16.20	210.00	3402.00
3	KSRB 4-1.2 : Providing and laying in position **plain cement concrete of mix 1:3:6** with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation** including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **(P.No. 12/I.No. 4.2 of CSR 2016-17)**	Cum							
				Qty Vide pre-measuremne It No 3 P. No 2			39.62		
	Qty upto125% (21.18*125%)						26.48	5440.00	144051.00
	Qty Above 125%						13.14	5528.18	72640.00

4	KSRB 5.2-3 : Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 **Page No. 23 / Item No. 5.6, PWD SR 2016-17**	Cum							
	Total Qty			Qty Vide pre-measuremne It No 4 P. No 3			**53.39**	3400.00	**181526.00**
5	KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 **Page No. 23 / Item No. 5.9, PWD SR 2016-17**	Cum							
	Toilet								
	Long Wall		2	9.40	0.45	0.50	4.23		
	Short Wall		4	5.40	0.45	0.50	4.86		
	Deduction of Columns		6	0.20	0.45	0.50	0.27		
	Total Qty						8.82	5400.00	47628.00
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataraynpura Sub Division				
6	KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications **Page No. 113 / Item No. 15.1, PWD SR 2016-17**	Sqm							
	Toilet								
	Long Wall		2	9.40	0.45		8.46		
	Short Wall		2	5.40	0.45		4.86		
							13.32	90.00	**1199.00**
	Assistant Engineer Ward 86				Assisatant Executive Engineer Byataraynpura Sub Division				
7	KSRB 4-6.1 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specificaitons. Specification No. KBS 4.6.2 **Page No. 15 / Item No. 4.28, PWD SR 2016-17**	Sqm							

				Qty Vide pre-measuremne It No 7 P. No 3	54.00	240.00	12960.00
8	KSRB 4-6.5 : Providing and removing **centering, shuttering, strutting, propping** etc., for **columns, pillars, post and struts**, square / rectangular/ polygon in plan including cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 **Page No. 16 / Item No. 4.32, PWD SR 2016-17**	Sqm					
				Qty Vide pre-measuremne It No 8 P. No 3	64.35	380.00	24453.00
9	KSRB 4-6.4 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for **vertical surface such as walls at any thickness**, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 **Page No. 15 / Item No. 4.31 PWD SR 2016-17**	Sqm					
				Qty Vide pre-measuremne It No 9 P. No 4	81.16	300.00	24348.00
10	KSRB 4-6.2 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for suspended floors, landings, balconies and likes, thickness upto 200 mm including cost of all materials, labour complete as per specificaitons **for heights more than 3.50m from ground**	Sqm					
				Qty Vide pre-measuremne It No 10 P. No 5	51.20	330.00	16896.00
11	KSRB 4-6.7 :Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for sides and soffits of **beams, beam haunchings, cantilever girders, bressumers and lintels not exceeding 1m in depth** including cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 **Page No. 16 / Item No. 4.34, PWD SR 2016-17**	Sqm					
				Qty Vide pre-measuremne It No 11 P. No 4	54.73	270.00	14777.00

12	KSRB 4.2.2 : Providing and laying in position **reinforced cement concrete of Design mix M20** with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460 cum, with super plasticisers @ 3 liters confirming to is 9103-1999 reafirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works **in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc.,** including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. Specification No. KBS 4.1, 4.6 **Page No. 12, Item No. 4.11, PWD SR 2016-17**	Cum							
	Toilet								
	column Footing		9	1.35	1.35	0.60	9.84		
			9	1.00	1.00	0.45	4.05		
	Columns		9	0.20	0.45	5.50	4.46		
	Plinth Beam								
	Long Wall		2	9.20	0.20	0.45	1.66		
	Short Wall		4	5.40	0.20	0.45	1.94		
	Watch man Room		1	1.70	0.20	0.45	0.15		
			1	1.65	0.20	0.45	0.15		
	Toilet Inside Walls		2	5.40	0.20	0.30	0.65		
			3	1.40	0.20	0.30	0.25		
			2	1.30	0.20	0.30	0.16		
	Sump Tank Bottom		1	2.50	1.80	0.20	0.90		
	Side Walls		2	2.50	0.20	1.80	1.80		
			2	1.40	0.20	1.80	1.01		
	Covering Slab		1	2.50	1.80	0.15	0.68		
							27.69	6480.00	**179431.00**

Assistant Engineer
Ward 06

Assistant Executive Engineer
Byatarayanpura Sub Division

13	KSRB 4.2.8: Providing and laying in position **reinforced cement concrete of design mix M20** with OPC cement @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregates @ 0.46cum, with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works **in ground floor level for roof slabs, staircase, lintles, and beams retaining walls, return walls, walls (any thickness) including attached plasters, columns, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc.,** including cost of all materials, labour, HOM of machinery, curing, complete but excluding cost of reinforcement as per specifications. Specification No. KBS 4.1, 4.6. (**P. No.**	Cum							
	Toilet								
	Lintel								
	Long Wall		2	9.20	0.20	0.20	0.74		
	Short Wall		4	5.40	0.20	0.20	0.86		
	Watch man Room		1	1.70	0.20	0.20	0.07		
			1	1.65	0.20	0.20	0.07		
	Toilet Inside Walls		2	5.40	0.20	0.20	0.43		
			3	1.40	0.20	0.20	0.17		
			2	1.30	0.20	0.20	0.10		
	Roof Beam								
	Long Wall		2	9.20	0.20	0.45	1.66		
	Short Wall		4	5.40	0.20	0.45	1.94		
	Watch man Room		1	1.70	0.20	0.45	0.15		
			1	1.65	0.20	0.45	0.15		
	Toilet Roof Slab		1	9.20	5.75	0.15	7.94		
							14.27	6650.00	**94896.00**
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataraynpura Sub Division				
14	KSRB 4.9.2 : Providing **T.M.T steel reinforcement for R.C.C work** including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 - **TMT bars Fe 500 Page No. 17 / Item No. 4.46.2, PWD SR 2016-17**	Tonne							

				Qty Vide pre-measuremne It No 14 P. No			5.87	65450.00	384192.00
15	KSRB 2.3 : Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20cms, in depth, compacting each deposited layers by ramming after watering with lead upto 50m, and lift upto 1.5m, including cost of all labour complete as per specifications, specification. No. KBS 2.9, **Page No. 6 / Item No. 2.10 / PWD SR 2016-17**	Cum							
	Arround Footing								
			9	1.50	1.50	2.40	48.60		
							48.60	130.00	**6318.00**
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataraynpura Sub Division				
16	KSRB 5-14.1 Providing and constructing load bearing wall with solid concrete blocks of size **400x200x200** mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 **Page No. 25 / Item No. 5.27.1, PWD SR 2016-17**	Sqm							
	Long Wall		2	9.20		2.65	48.76		
	Short Wall		4	5.40		2.65	57.24		
	For sump		2	2.50		2.20	11.00		
			2	1.80		2.20	7.92		
	Backside of Toilet						124.92		
	Deductions								
	Door1		3	1.20		2.10	-7.56		
	Windows		2	1.20		1.30	-3.12		
	Opening		1	1.30		1.10	-1.43		
	Ventilators		6	1.20		0.45	-3.24		

= 15.35

= 109.57

	Column Deduction		9	0.45		2.65	-10.73		
							98.84	1000.00	98840.00
	Assistant Engineer Ward 06					Assisatant Executive Engineer Byatarayanpura Sub Division			
17	KSRB 5-14.2 : Providing and constructing load bearing wall with solid concrete blocks of size **400x150x200** mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 5.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 **Page No. 25 / Item No. 5.27.2, PWD SR 2016-17**	Sqm							
	Toilet Inside Wall								
	Toilet 1		1	4.05		2.20	8.91		
			3	1.40		2.20	9.24		
	Toilet 2		1	3.60		2.20	7.92		
			2	1.30		2.20	5.72		
	Watchman Room		1	1.70		2.20	3.74		
			1	1.65		2.20	3.63		
	Parapet Wall		2	9.20		1.20	22.08		
			2	5.40		1.20	12.96		
	For raising ground		1	21.10		0.40	8.44		
			1	6.70		0.40	2.68		
			1	9.00		0.40	3.60		
	Deductions						88.92		
	Door1		1	0.90		2.10	-1.89		
	Door2		6	0.75		2.10	-9.45		
							77.58	980.00	76028.00
	Assistant Engineer Ward 06					Assisatant Executive Engineer Byatarayanpura Sub Division			
18	KSRB15-3.10 : Providing 20mm thick cement plaster in single coat with cement mortar 1:3, to stone masonry & concrete surface including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. **Page No. 114 / Item No. 15.18, PWD SR 2016-17 (Outside Wall)**	Sqm							
	Toilet Outside Plastering								
			2	9.20		5.55	102.12		
			2	5.75		5.55	63.83		

	Deductions								
	Door1		3	1.20		2.10	-7.56		
	Windows		2	1.20		1.30	-3.12		
	Opening		1	1.30		1.10	-1.43		
	Ventilators		6	1.20		0.45	-3.24	-15.35	
							150.60	220.00	33131.00
									33132
	Assistant Engineer Ward 06 ಸಹಾಯಕ ಅಭಿಯಂತರರು ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ				Assisatant Executive Engineer Byataraynpura Sub Division ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-24				
19	KSRB15-3.3 : Providing 12mm thick cement plaster in single coat with cement mortar 1:4, to brick masonry including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. **Page No.112/ Item No. 15.10, PWD SR 2016-17**	Sqm							
	Store Room								
			2	5.40		3.00	32.40		
			2	3.00		3.00	18.00		
	Watch Man Rom		2	1.70		3.00	10.20		
			2	1.65		3.00	9.90		
	Toilet 2		1	5.45		3.00	16.35		
			1	3.60		2.20	7.92		
	Inside Toilet		4	1.30		2.20	11.44		
			2	1.05		2.20	4.62		
			2	1.05		3.00	6.30		
			2	1.30		2.20	5.72		
			1	1.20		2.20	2.64		
			1	1.20		3.00	3.60		
	Passage		2	1.45		3.00	8.70		
	Toilet 1		2	5.40		3.00	32.40		
			1	4.05		2.20	8.91		
			7	1.40		2.20	21.56		
			3	1.20		2.20	7.92		
			1	1.45		3.00	4.35		
			1	2.70		3.00	8.10		
	Passage		1	1.20		3.00	3.60		
	Deductions						224.63		
	Door1		1	0.90		2.10	-1.89		
	Door2		6	0.75		2.10	-9.45		
							213.29	170.00	36259.00
	Assistant Engineer Ward 06 ಸಹಾಯಕ ಅಭಿಯಂತರರು ಬಿ.ಬಿ.ಎಂ.ಪಿ ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ				Assisatant Executive Engineer Byataraynpura Sub Division ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-24				

20	KSRB15-3-13 : Providing 12mm thick cement plaster in single coat with cement mortar 1:3, to **ceiling** including rounding off corners wherever required smooth rendering, : Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications. **Page No. 114, Item No. 15.21 of PWD SR 2016-17**	Sqm							
	Toilet Ceiling Plastering								
	Store Room		1	5.40	3.00		16.20		
	Toilet 1		1	5.40	2.90		15.66		
	Toilet 2		1	5.40	2.75		14.85		
							46.71	200.00	**9342.00**
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byatarayanpura Sub Division				
21	KSRB 15.10.2 Providing white washing for every one additional coat with lime of approved quality, to give an even shade including cost of materials, labour, complete as per specifications.	Sqm							
	Inside Plastering		Qty Vide Item No. 19				**213.29**	5.00	**1066.00**
22	KSRB 15.10.4 Providing white washing to ceiling and / or sloping roof surface with additional one coat with lime of approved quality, to give an even shade including cost of materials, labour, complete as per specifications.	Sqm							
	Celing Plastering		Qty Vide Item No. 20				**46.71**	5.00	**234.00**
23	KSRB 15-16.1 : Providing and finishing external walls in two coats with waterproof cement paint of approved brand and shade to give an even shade after throughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter cost of materials, labour, complete as per specifications. - with primer. **Page No. 117 / Item No. 15.53.2, SR 2016-17.**	Sqm							
	Out Side Plastering		Qty Vide Item No. 18				**150.60**	100.00	**15060.00**
24	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - with primer. (**P. No. 116, I.No. 15.51.2 of SR 2016-17**).	Sqm							
	Inside Plastering		Qty Vide Item No. 19				**213.29**	95.00	**20263.00**

25	KSRB 15-15.1 : Providing and applying painting in two coats with plastic emulsion paint of approved brand on wall surface to give an even approved shade after thoroughly brushing the surface, free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. - with primer. (**P. No. 116, I.No. 15.51.2 of SR 2016-17**).	Sqm							
	Ceiling Plastering		Qty Vide Item No. 20				**46.71**	100.00	**4671.00**
26	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.6 PWD SR 2016-17**	Cum							
a	For Pavement Allround Toilet		1	8.70	(5.8+3.60)/2	0.15	6.13		
			1	12.10	(6.0+4.20)/2	0.15	9.26		
			1	9.20	(2.30+2.10)/2	0.15	3.04		
			1	9.00	(3.55+3.25)/2	0.15	4.59		
			0	11.85	(6.70+7.55)/2	0.15	0.00		
			0	11.20	(5.20+4.0)/2	0.15	0.00		
			1	9.20	1.10	0.15	1.52		
			1	3.00	1.10	0.15	0.50		
			1	2.40	0.45	0.15	0.16		
			1	8.10	(2.10+2.80)/2	0.15	2.98		
					Total Qty		28.17		
					ltd		28.17		
	Qty upto125%						**17.68**	5870.00	**103782.00**
	Qty Above 125%						**10.49**	5770.85	**60536.00**
	Assistant Engineer Ward No.66				Assisatant Executive Engineer Byataraynpura Sub Division				
27	KSRB 14.14-5: Providing Ceramic tiles of approved make,shade and size for flooring, treads of steps and landings laid on a bed of 12mm thick, cement mortar 1:3 mix, flush pointing with white cement using colour pigment , including cost of materials, labour, curing, complete as per specifications. - for Ceramic Tiles 400 x 400mm on a bed of 20mm thick	Sqm							
	Flooring								

	Toilet 1 Passage		1	5.45	1.20		6.54		
	Inside Toilet		3	1.40	1.20		5.04		
			1	1.45	1.40		2.03		
	Toilet 2 Passage		1	1.80	1.20		2.16		
			1	3.60	1.40		5.04		
	Inside Toilets		3	1.40	1.20		5.04		
	Watch Men room		1	1.70	1.65		2.81		
	AEE Office inside Toilet		1	1.75	1.25		2.19		
			1	1.90	1.20		2.28		
	Store Room		1	5.40	3.00		16.20		
	steps		1	1.20	0.45		0.54		
							49.86		
							49.86	1270.00	63322.00
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataraynpura Sub Division				
28	KSRB 9.4-3 : Providing Mathi / Nandi wood frames of doors, windows, clerestory windows, ventilators and other frames, wrought, framed or assembled including making plaster groves (excluding cost of cement concrete and side clamps), but including cost of materials, labour, HOM of machineries complete as per specifications. Specification No. KBS 9.33 (**P. No. 51/ I. No. 9.12 of PWD SR 2016-17**)	Cum							
	Toilet Doors		6*2	0.90	0.10	0.125	0.14		
			6*2	2.10	0.10	0.125	0.32		
							0.45	88000.00	39600.00
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataraynpura Sub Division				
29	KSRB 9.5-3 : Providing and fixing in position fully panelled Mathi/Nandi wood shutters for doors, styles and **rails of 40mm**. thick with bottom and lock rails 180mm wide top rail and styles 100mm wide as per drawing and panels of 25mm thick including cost of materials, labour, HOM of machineries complete as per specifications. (excluding cost of fixtures) Specification No. KBS 9.34	Sqm							
			Not Executed				0.00	4239.00	0.00

30	Providing and fixing factory made single leaft rigid GRP Sandwich composite door shutter of 32mm thick, laminated with two GRP skins with wood grain finish, fabricated using U.V-stabilized Isopthalic Gelcoat and on layer of 45 gsm E-Glass Chopped strand Mat (CSM), impregnated with orthopthalic polyster resin. The thickness of the skins shall not be less than 1.5mm. Expanded Polystyrene (EPS) structural foam panel of 29mm thickness and a density of 20 Kg/m3 shall be used as core material. Wooden reinforcements made of Seasoned Salwood block of cross section not less than 28mmx32mm and also necessary salwood reinforcements for fixing the metal fittings such as tower bolts, aldrops, handles, etc, shall be provided. A structural adhesive compatible with EPS foam shall be used for bonding the core material, the Salwood reinforcement and the skins.	Sqm							
	Toilet Doors		6	0.70		2.05	8.61		
							8.61	3450.00	**29705.00**
31	KSRB 7.9 : Providing and fixing M.S.grill work for windows and ventilators weighing 21kg/sqm using M.S. flats, or M.S. square rods, or combination of M.S. flats and square rods as per approved design, drawing including cutting steel sections and welding the same to required pattern with a coat of red lead primer, cost of materials, fixtures, labour and HOM of machinery complete as per specifications. Specification No. KBS 7.12. **(P.No. 32, I.No. 7.9 of PWD SR 2016-17)**	Kgs							
	Ventilators		6	1.20		0.45	3.24		
	Windows		2	1.20		1.30	3.12		
							6.36		
	at 21 Kgs/Sqm						**133.56**	84.00	**11219.00**

Assistant Engineer
Ward 005

Assisatant Executive Engineer
Byatarayanpura Sub Division
B.B.M.P., Bengaluru-24

32	KSRB 7.10 : Providing and fixing in position aluminium windows and ventilators as per approved drawings with sliding shutters using double track window frame section of size 61.85x31.75mm. with 1.2mm thick, bottom section weight 0.695 kg/m, sides and top sections 1.3 mm. thick weight 0.659 kg/m; and shutter comprising top and bottom section of size 40mmx18mm, 1.25mm thick 0.417 kg./m; shutter outer side 40mmx18mm, 1.25mm.thick weight 0.417 kg/m, shutter interlock section 40mmx26.7mm, 1.1mm thick, weight 0.469 kg/m. the shutters mounted on nylon rollers with approved quality of fixtures such as aluminium handles tower bolts etc.; and providing and fixing 5.5mm. thick plain glass for shutters fitted with rubber beading aluminium sections including cutting to required length, joints mitred subdividing the frame tenonned and rivetted in the assembled frame stiffened with end clips at corners angles etc., and fixed to the walls, lintels, floor beams/cills as the case may be with necessary steel screws, raul plugs, or teak wood gatties including cutting masonry or concrete and making good the original surface using cement mortar, aluminium sections pretreated for removal of any	Sqm								
	Ventilator		GFC 6	1.20			0.45	3.24		
			2	1.20			1.30	3.12		
								6.36	4125.00	26235.00
	Assistant Engineer, Ward-96					Assistant Executive Engineer, Byatarayanapura Sub Division				
33	KSRB 15-17.4 : Applying priming coat over new wood surface and / or wood based surface, after brushing with ready mix enamel priming paint including preparing the surface after thoroughly cleaning oil, grease, dirt and foreign matter, sand papering and knotting ready	Sqm								
			Qty Vide Item No. 29					0.00	33.00	0.00
34	KSRB 15-17.6 : Providing and applying painting two coats (excluding priming coat) on new wood surface and / or wood based surface with enamel paint to give an even shade, cleaning the surface of all dirt, dust and foreign matter, sand papering including cost of materials, labour, complete as per specifications. **(P.No. 118, I.No. 15.60.1 of SR 2016-17).**	Sqm								
			Qty Vide Item No. 29					0.00	33.00	0.00

5	KSRB 13-11.1 : Providing and placing on terrace, polyethylene water storage tanks with manhole lid and suitable locking arrangements, making holes of suitable diameter for inlet, outlet and over flow pipes, including cost of all materials, labour, transport charges, HOM of equipments and testing complete as per specifications. **(For 1000 litre capacity) Specification No.KBS 13.22 Page No. 94, Item No. 13.78, PWD SR 2016-17**	Nos							
			2				2		
							2	9144.00	**18288.00**
	Assistant Engineer Ward 06				Assistant Executive Engineer Byatarayanpura Sub Division				
6	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1.00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of joints complete. (Concealed work including cutting chases and good the walls etc.) - 20mm nominal OD pipes. **(P.No. 96, I.No. 13.86.2 PWD SR 2016-17)**	m							
	20 mm Nominal OD Pipe		1	90.00			90.00		
	Repair of Toilet		1	30.00			30.00		
							120.00	210.00	**25200.00**
	Assistant Engineer Ward 06				Assistant Executive Engineer Byatarayanpura Sub Division				
7	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778, having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1.00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement & the cost of cutting chases & making good the same including testing of joints complete. (Concealed work including cutting chases and good the walls etc.) - 25mm nominal OD pipes **(P.No.96, I.No. 13.86.3 of PWD SR 2016-17)**	m							
	25 mm Nominal OD Pipe		1	90.00			90.00		
	Repair of Toilet		1	25.00			25.00		

							115.00	270.00	31050.00
	Assistant Engineer Ward 06						Assisatant Executive Engineer Byataraynpura Sub Division		
38	KSRB13-8.5 : Providing and fixing to wall, ceiling and floor, low density polyethylene pipes 6.00 kgf/sq.cm working pressure 90mm outside diameter with special flange, compression type fittings, wall clips, making good the wall, ceiling and floor, including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications. Specification No.KBS 13.2.15.1 / 13.9	m							
	110mm Outer dia		1	30.00			30.00		
	Repair of Toilet		1	30.00			30.00		
							60.00	380.00	22800.00
	Assistant Engineer Ward 06						Assisatant Executive Engineer Byataraynpura Sub Division		
39	KSRB 11-15.3 : Providing and fixing 453x357mm dia rectangular shape mirror with plastic moulded frame of approved make and shade with 6mm thick hard board backing including cost of materials, labour complete as per specifications. (**P.No.82, I.No. 12.41 of PWD SR 2016-17**)	Unit							
			4				4.00		
							4.00	1270.00	5080.00
	Assistant Engineer Ward 06						Assisatant Executive Engineer Byataraynpura Sub Division		
40	Providing and fixing 7.5 cms to 15.00 cms dia NP grating 100 mm dia. (**P.No. 88, I.No. 12.111 of PWD SR 2016-17**)	Each							
			28				28.00		
							28.00	170.00	4760.00
	Assistant Engineer Ward 06						Assisatant Executive Engineer Byataraynpura Sub Division		
41	Providing and fixing CI Nahani trap of approved make conforming to ISI specifications and construction of Cistern in M-15 as per directions (Rate is inclusive of cost of materials and fixtures and conveyance of materials to work spot). **- 10cms x 7.5cms**	Each							

			28				28.00		
							28.00	270.00	**7560.00**
	Assistant Engineer Ward 06						Assistant Executive Engineer Byataraynpura Sub Division		
2	KSRB13-6.4-1 : Providing and fixing in position brass bib cock of approved quality 15mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.2 / 13.3	Each							
			24				24.00		
							24.00	260.00	**6240.00**
	Assistant Engineer Ward 06						Assisatant Executive Engineer Byataraynpura Sub Division		
3	KSRB13-6.3-3 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 25mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.6 / 13.3. (**P.No.91/ I.No. 13.34 of PWD SR 2016-17**)	Each							
			24				24.00		
							24.00	648.00	**15552.00**
	Assistant Engineer Ward 06						Assisatant Executive Engineer Byataraynpura Sub Division		
4	KSRB13-6.3-2 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 20mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.6 / 13.3 (P.No. 91, I.No. 13.33 of PWD SR 2016-17)	Each							
			12				12.00		
							12.00	440.00	**5280.00**
	Assistant Engineer Ward 06						Assisatant Executive Engineer Byataraynpura Sub Division		

5	Constructing brick masonry inspection chamber **450x450mm, and 450mm depth** (clear inside dimension) for single pipeline, using table moulded non-modular bricks of class designation 50 in cement mortar 1:5, C.I cover withframe (light duty) 455x610mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23kg and weight of frame 15 kg) R.C.C. top slab with cement concrete M 15 with 20mm and downsize granite metal, foundation concrete M 5 with 40mm and downsize granite metal inside plastering 12mm thick with cement mortar 1:3, finish smooth with a floating coat of cement on walls and bed concrete complete as per standard design including cost of materials, labour charges, curing complete as per specifications. Specification No. KBS 450x450mm and 450mm depth (clear inside dimension) for single pipeline, using table moulded non-modular bricks of class designation 50 in cement mortar 1:5, C.I cover withframe (light duty) 450x450mm **(P.No. 74 / I.No.11.50.2 of PWD SR 2016-17)**	Nos.								
			8				8.00		
							8.00	5770.00	**46160.00**
6	KSRB 11-2 : Providing and fixing white vitreous china clay, water closet Orissa pattern of size 580 x 440mm with integral type footrests, 100mm S or P trap, 10 litre low level, P.V.C flushing cistern (all are approved make) with fittings, C.I / M.S brackets, 32mm diameter flush pipe fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11. **(P.No. 77, I.No.12.2 of PWD SR 2016-17)**	pan								
			Not Executed						

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	KSRB 11-5 : Providing and fixing white vitreous china clay, water closet European type (Pedestal type, P-trap) with black solid plastic seat and lid, C.P brass hinges, rubber buffers. 10 litre low level, P.V.C flushing cistern (all are approved make) with fittings, C.I / M.S brackets, 40mm diameter flush bend with fittings and clamps, overflow arrangements with special and 25mm mosquito proof coupling of approved design, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 **Page No. 77 / Item No. 12.5, PWD SR 2016-17**	Each								
	New Toilet		6					6.00		
	AEE Office		2					2.00		
								8.00	6540.00	**44320.00**
	Assistant Engineer Ward 06						Assisatant Executive Engineer Byatarayanpura Sub Division			
8	KSRB 11-7.4 : Providing and fixing white vitreous china clay, flat back, lipped front **urinal basin of** 430x260x350mm in the range of four with 10 litres PVC automatic flushing cistern, C.I / M.S brackets, standard flush pipe and C.P. brass spreaders with brass unions and G.I. clamps complete painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11	Unit								
	New Toilet		3					3.00		
								3.00	7350.00	**22050.00**
	Assistant Engineer Ward 06						Assisatant Executive Engineer Byatarayanpura Sub Division			
9	KSRB 11-11.1 : Providing and fixing white vitreous china clay, flat back wash basin size 630x450mm with a pair of 15mm C.P brass pillar taps with C.I / M.S brackets, 32 mm C.P. brass waste of standard pattern, painting of fittings and brackets, cutting and making good the wall and floor wherever required, including cost of materials, labour complete as per specifications. Specification No. KBS 11 **Page No. 80, Item No. 12.23, PWD SR 2016-17**	Unit								

	New Toilet		2				2.00		
	AEE Office		2				2.00		
							4.00	4190.00	16760.00
	Assistant Engineer Ward 06				Assistant Executive Engineer Byataraynpura Sub Division				
10	KSRB 24-14 : Removing the old paint from steel and / or other metal surface with flame cleaning and making surface even including cost of material, labour, complete as per specifications. Specification No.KBS	Sqm							
	For Existing Toilet Doors		2*2	0.90		2.10	7.56		
							7.56	65.00	491.00
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataraynpura Sub Division				
11	KSRB 24-44 : Repairs to plaster in patches of 2.5 sqm and less in walls, ceilings 10 to 20mm thick in cement mortar 1:3 including cutting the patches in proper shape and replastering the surface of the wall including disposal of rubbish with a lead of 50m including curing cost of materials, labour, complete as per specifications. Specification No.KBS 24.2.1 **(P.No. 131, I.No. 16.38 of SR 2016-17).**	Sqm							
	For Existing Toilet Walls		2	1.75		2.10	7.35		
			2	1.25		2.10	5.25		
			2	1.90		2.10	7.98		
			2	1.20		2.10	5.04		
	sump		2	2.50		2.10	10.50		
			2	1.80		2.10	7.56		
							43.68	260.00	11357.00
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataraynpura Sub Division				
12	Removing of existing old or broken water closet Indian / European and disposing it with all cost and conveyance labour for all items of works HOM of equipments with all lead and lift, loading and unloading, transportation charges and all other incidental charges etc., complete as per specification and direction of Engineer in charge of the work	Each							
	For Existing Toilet		2				2.00		
			2				2.00		
							4.00	201.00	804.00

	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataravnpura Sub Division				
3	Removing of existing olf sanitary and plumbing pipelines, stacking and disposing it with all cost and conveyance labour for all items of equipment with all and lead lift, loading and unloading, transportation charges and all other incidental charges etc complete as per specification and direction of engineer in charge of work	Rmtr							
			1	15.00			15.00		
			1	15.00			15.00		
							30.00	67.00	2010.00
	Assistant Engineer Ward 06				Assistant Executive Engineer Byataravnpura Sub Division				
4	KSRB 15-18.2 : Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications. (**Page No. 120 Item No. 15.74 of SR 2016-17**).	Sqm							
	For existing Toilet Doors		12	0.90		2.80	30.24		
	Ventilator		11	0.60		0.60	3.96		
							34.20	80.00	2736.00
	Assistant Engineer Ward 06				Assistant Executive Engineer Byataravnpura Sub Division				
5	Providing and fixing of clay tiles for **cladding tiles** of size 230x75x10mm thick on 12 mm thick cement mortar 1.3 & jointed with adhesive / cement slurry over rough plaster surface excluding cost of rough plasterd surface and the surface is painted with red apex paint and black apex paint in to the groves	Sqm							
	For new Toilet								
	Toilet 1		1	2.65		2.10	5.57		
			1	1.40		2.10	2.94		
	Inside Toilet		6	1.40		2.10	17.64		
			6	1.20		2.10	15.12		
	Toilet 2		1	1.40		2.10	2.94		
	Inside Toilet		6	1.30		2.10	16.38		
			6	1.05		2.10	13.23		
	Front wall		1	9.20		2.10	19.32		
	AEE Office inside Toilet		2	1.75		2.10	7.35		

160.36

			2	1.25		2.10	5.25		
			2	1.90		2.10	7.98		
			2	1.20		2.10	5.04	18.27	
							118.76		
	deduct doors new Toilet		2	0.70		2.10	1.40		
	AEE office toilets		6	0.70		2.10	4.20		
			2	1.20		2.10	2.40	-8	
							110.76	1720.00	190507.00

Assistant Engineer
Ward 06
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Assisatant Executive Engineer
Byataraynpura Sub Division
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

	EIRL								
1	Supplying and fixing M.S. Rectangular poles made out of 2 equal angles of 65x65x6 mm welded together and fixed in CC (1:2:4) WITH 2 NOS 16mm dia M.S. hold fast rods each of length 25 cms. Including cost of all materials cutting, bending scaffolding wherever necessary, nicely finishing the welded joints with all lead lifts and as per the directions of the Engineerin - charge of the work and including providing 2 coats of approved quality paint over one coat of shop painting (excluding cost of earthwork and concrete) **Page No. 266 / Item No. 37.2, PWD SR 2018-19**	m							
	For Chain Link Fenicing		16	2.40			38.40		
							38.40	897.34	**34458.00**

Assistant Engineer
Ward 06
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Assistant Executive Engineer
Byataraynpura Sub Division
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-24

E2	Providing and fixing M.S. Block pipe of 38mm dia, of heavy guage of 14 including removing the bends, cutting the pipe, and fixing pipe in between the existing two verticle poles (M.S. rectangular poles) and spot welding the chain link with M.S. block pipe including cost of all materials wastage in cutting, and scaffolding wherever necessary with all lead and lift as directed by the Engineer-in-charge of work etc., complete including two coats of approved quality paint over one coat of shop paint. **Page No. 266 / Item No. 37.4, PWD SR 2018-19**	m							
	For Chain Link Fenicing		3	15.25			45.75		
			3	11.80			35.40		
			3	2.40			7.20		

88.35

					Total qty		88.35		
					Ltd		88.20	426.21	37592.00
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataraynpura Sub Division				
3	Providing chain link fencing 50mm size of 8 guage properly stretched between existing rectangular poles and fixed with suitable bolts & nuts, the free ends shall be welded to the pole and block pipe at top and bottom as required including cost of all materials, labour, lead and lifts and as per the directions of the Engineer-in-charge of work including two coats of approved quality paint over one coat of shop paint **Page No. 266 / Item No. 37.3, PWD SR 2018-19**	Sqm							
	For Chain Link Fenicing		1	15.25		1.50	22.88		
			1	11.80		1.40	16.52		
			1	9.30		1.50	13.95		
							53.35		
							52.92	746.91	39526.00
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataraynpura Sub Division				
4	Providing and fixing M.S. Gate as per Chief Architect Drawing, using 50mm x 50mm 14 guage M.S. hollow pipe frame work bent to ornamental shape as shown in the drawing and 35mm x 6mm and 16 x 16mm Square rods for verticals alternatively spaced at 4cms c/c in two halves and 40mmx6mm M.S. flats for horizontal member and at the top cast iron spikes are provided at alternate vertical members asshown in the drawing etc., complete. All the steel surface should be thoroughly cleaned free of rust and painted with anti corrosive paint (shop paint) etc., complete. The work includes cost of all materials, labour charges for all items of work, hire charges for welding, cutting and grinding equipment, and electricity charges, with lead and lift, loading and unloading charges, etc., complete as per specifiocation. **Page. No. 45 / Item. No. 7.37 PWD SR 2018-19**	Sqm							
			1	1.60	1.95		3.12		
							3.12	3146.43	9817.00
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataraynpura Sub Division				

5	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **Page No. 155 / Item No. 20.18, PWD SR 2018-19**	Cum							
				Qty Vide pre-measuremne It No E 5 P. No 8			**56.73**	1972.26	**111886.00**
6	KSRB 14.6-1: Providing and laying **heavy duty cobble stones 60mm thick interlock pavers**, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications. Specification No. KBS. **(P.No. 103, I.No. 14.6 of PWD SR 2018-19)**	Sqm							
a	Behind Toilet Building		1	11.85	(6.70+7.55)/2		84.43		
b			1	11.20	(5.20+4.0)/2		51.52		
	all round BBMP Help Line L/s		1	9.00	2.50		22.50		
	Front side		1	7.60	1.60		12.16		
	Right side		1	6.50	1.30		8.45		
	Back side		1	6.50	1.30		8.45		
	front door		1	3.20	3.20		5.12		
					Total qty		**192.63**		
	deduction		4.0	0.80	0.80		2.56		
					Net qty		**190.07**		
					Ltd		**189.10**	1100.00	**208010.00**

30.04.21

Assistant Engineer
Ward 06

Assistant Executive Engineer
Byatarayanpura Sub Division

	KSRB 10-3 : Providing and laying integral cement based waterproofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc., consisting of following application. (a) Applying and grouting a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with proprietary water proofing compound conforming to IS:2645 over the RCC slab after cleaning the surface before treatment. (b) Laying cement concrete using broken brick bats 25mm to 100mm size with 50% of cement mortar 1:5 admixed with proprietary water proofing compound conforming IS:2645 over 20mm thick layer of cement mortar 1:5 admixed with proprietary water proofing compound to required slope and treating similarly the adjoining walls upto 300mm height including rounding off junctions of walls and slabs. (c) After two days of proper curing, applying a second coat of cement lurry admixed with proprietary water proofing compound (d) Finishing the surface with 20mm thick jointless cement mortar of mix 1:4 admixed with proprietary water proofing compound and finally finishing the surface with trowel and neat cement slurry and making of 300x300mm square. (e) The whole terrace so finished	Sqm								
	Roof		1	9.20	5.75		52.90		
							52.90	1070.73	**56642.00**
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataraynpura Sub Division				
E8	KSRB 7.3 : Providing and fixing 1mm thick M.S. sheet garage door with frame and diagonal braces of size 40x40x6 mm angle Iron, 3.15mm thick M.S. Gusset plates at the junctions and corners, with handles, stoppers and locking arrangements etc., including applying a priming coat of red lead paint cost of materials, labour, HOM of machinery complete as per specifications. Double leaf door of size 2.4x2.4m. Specification No. KBS 7.9 / 7.12. (P.No. 33, I.No. 7.3 of PWD SR 2018-19)	Sqm								
	Main Door		3	1.20		2.10	7.56		
			1	0.90		2.10	1.89		
							9.45	2904.58	**27448.00**
								Total	**2882683.00**
	Assistant Engineer Ward 06				Assisatant Executive Engineer Byataraynpura Sub Division				